Coastal Zone Management Plan
Alaska State Standards
Chignik Airport Access Road
State Project No. 54291
June 5, 2006

The DOT&PF finds the proposed Chignik Airport Access Road Project consistent to the maximum extent possible with the Alaska Coastal Management Program (ACMP) and the enforceable policies of the Lake and Peninsula Borough (L&PB) Coastal Management Plan.

The following State Standards may be applicable:

Article 2. Uses and Activities.

Section
200. Coastal development
210. Natural hazard areas
220. Coastal access
230. Energy facilities
240. Utility routes and facilities
250. Timber harvest and processing
260. Sand and gravel extraction
270. Subsistence
280. Transportation routes and facilities

11 AAC 112.200. Coastal development. (a) In planning for and approving development in or adjacent to coastal waters, districts and state agencies shall manage coastal land and water uses in such a manner that those uses that are economically or physically dependent on a coastal location are given higher priority when compared to uses that do not economically or physically require a coastal location.

(b) Districts and state agencies shall give, in the following order, priority to

(1) water-dependent uses and activities;

(2) water-related uses and activities; and

(3) uses and activities that are neither water-dependent nor water-related for which there is no practicable inland alternative to meet the public need for the use or activity.

(c) The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with the standards contained in 33 C.F.R. Parts 320 - 323, revised as of July 1, 2003. (Eff. 7/1/2004, Register 170)

Authority: AS 46.39.010 AS 46.39.040 AS 46.40.040
AS 46.39.030 AS 46.40.010

Placement of fill and armor stone in Anchorage Bay is required to reconstruct Chignik Airport Access Road. The road provides the only land access between the community, the Chignik Airport, and the new small boat harbor. The road is located along the shore of Anchorage Bay and in two locations at the toe of the

coastal bluffs. There is no practicable inland alternative to meet the public need for a land route to the airport and the small boat harbor.

11 AAC 112.210. Natural hazard areas. (a) In addition to those identified in 11 AAC 112.990, the department, or a district in a district plan, may designate other natural processes or adverse conditions that present a threat to life or property in the coastal area as natural hazards. Such designations must provide the scientific basis for designating the natural process or adverse condition as a natural hazard in the coastal area, along with supporting scientific evidence for the designation.

(b) Areas likely to be affected by the occurrence of a natural hazard may be designated as natural hazard areas by a state agency or, under 11 AAC 114.250(b), by a district.

(c) Development in a natural hazard area may not be found consistent unless the applicant has taken appropriate measures in the setting, design, construction, and operation of the proposed activity to protect public safety, services, and the environment from potential damage caused by known natural hazards.

(d) For purposes of (c) of this section, "appropriate measures in the setting, design, construction, and operation of the proposed activity" means those measures that, in the judgment of the coordinating agency, in consultation with the department's division of geological and geophysical surveys, the Department of Community and Economic Development as state coordinating agency for the National Flood Insurance Program under 44 C.F.R. 60.25, and other local and state agencies with expertise,

(1) satisfy relevant codes and safety standards; or

(2) in the absence of such codes and standards;

(A) the project plans are approved by an engineer who is registered in the state and has engineering experience concerning the specific natural hazard; or

(B) the level of risk presented by the design of the project is low and appropriately addressed by the project plans. (Eff. 7/1/2004, Register 170)

Authority: AS 46.39.010 AS 46.39.040 AS 46.40.040
AS 46.39.030 AS 46.40.010

Chignik Airport Access Road is located at the toe of coastal bluffs. Rock and ice fall off the cliffs and land on the road. The traveling public is at risk of being hit by falling rocks and ice. As a part of the project, the road will be moved further from the cliffs, which will increase safety and provide a space for the rocks to fall. The road side ditches will also be reconstructed which will improve drainage and decrease icing on the road.

The traveling surface of Chignik Airport Access road is at a low elevation above Anchorage Bay. Storm waves surge over the road and have eroded the existing armor rock and embankment. Adverse road conditions have temporarily closed this vital link between the Chignik community and the airport. This not only creates high maintenance efforts and associated cost expenditures, but loss of road use even for a short period of time has the potential for severe consequences on general traffic and emergency access. This project will raise the surface of the road and improve safety.

11 AAC 112.220. Coastal access. Districts and state agencies shall ensure that projects maintain and, where appropriate, increase public access to, from, and along coastal water. (Eff. 7/1/2004, Register 170)

Authority: AS 46.39.010 AS 46.39.040 AS 46.40.040
AS 46.39.030 AS 46.40.010

Improvements to Chignik Airport Access Road will provide a safer transportation link between the community, the small boat harbor, and the airport. The road also provides a connection to the new small boat harbor. Road improvements will maintain and improve public access in the Chignik area.

11 AAC 112.260. Sand and gravel extraction. Sand and gravel may be extracted from coastal waters, intertidal areas, barrier islands, and spits if there is no practicable alternative to coastal extraction that will meet the public need for the sand or gravel. (Eff. 7/1/2004, Register 170)

Authority: AS 46.39.010 AS 46.39.040 AS 46.40.040
AS 46.39.030 AS 46.40.010

Three local material sources have been identified in the project area. The Indian Creek Rock Quarry (a commercial quarry), and two existing unnamed commercial borrow sites have been identified that will be available for the Contractor's use if they desire. The quarry could provide both armor stone and embankment material, while the borrow sites could provide just embankment material for the project. These three sites are located in upland areas which are not within coastal waters, intertidal areas, barrier islands, nor sand spits. All permits and clearances for the material sources were previously acquired for the Corps of Engineers Harbor Project.

11 AAC 112.280. Transportation routes and facilities. Transportation routes and facilities must avoid, minimize, or mitigate

(1) alterations in surface and ground water drainage patterns;

(2) disruption in known or reasonably foreseeable wildlife transit; and

(3) blockage of existing or traditional access. (Eff. 7/1/2004, Register 170)

Authority: AS 46.39.010 AS 46.39.040 AS 46.40.040
AS 46.39.030 AS 46.40.010

The project will be designed to improve or maintain surface and subsurface water drainage patterns along Chignik Airport Access Road. Tier I or Tier III fish passage culverts will be installed in Humes Creek and the Unnamed Creeks.

DOT&PF coordinated with the Alaska Department of Natural Resources (ADNR) Office of Habitat Management and Permitting (OHMP) on the design of the culverts for the fish streams. The culverts were designed using Tier I or a Tier III fish passage design criteria per the Memorandum of Agreement between ADF&G and DOT&PF. Ditches will be reconstructed to improve road side drainage at the toe of the bluffs.

Article 3. Resources and Habitats.

Section
300. Habitats
310. Air, land, and water quality
320. Historic, prehistoric, and archeological resources

11 AAC 112.300. Habitats. (a) Habitats in the coastal area that are subject to the program are

(3) **wetlands**;
(4) **tideflats**;
(7) **exposed high-energy coasts**;
(8) **rivers, streams, and lakes and the active floodplains and riparian management areas of those rivers, streams, and lakes; and**

(b) The following standards apply to the management of the habitats identified in (a) of this section:

(3) wetlands must be managed to avoid, minimize, or mitigate significant adverse impacts to water flow and natural drainage patterns;

(4) tideflats must be managed to avoid, minimize, or mitigate significant adverse impacts to

(A) water flow and natural drainage patterns; and
(B) competing uses such as commercial, recreational, or subsistence uses, to the extent that those uses are determined to be in competition with the proposed use;

(7) exposed high-energy coasts must be managed to avoid, minimize, or mitigate significant adverse impacts

(A) to the mix and transport of sediments; and
(B) from redirection of transport processes and wave energy;

(8) rivers, streams, and lakes must be managed to avoid, minimize, or mitigate significant adverse impacts to

(A) natural water flow;
(B) active floodplains; and
(C) natural vegetation within riparian management areas; and

Unavoidable wetland and tideland fill will be managed to minimize or mitigate significant adverse impacts to water flow and natural drainage patterns. Wetland and tideland fill will be conducted in accordance with the Corps of Engineers Nationwide 23 Permit and the Title 41 Habitat Permit stipulations. Placement of fill

has been avoided, minimized, and mitigated to the maximum extent practicable, while adhering to current design standards. No long-term adverse effects are expected. Best Management Practices will be used to ensure pollutants do not reach Anchorage Bay, Humes Creek, the Unnamed Creeks or other water bodies. Replacement of the culvert pipes in the fish stream will improve fish passage.

Placement of armor stone and road improvements will have a positive long-term effect on water quality. Storm waves would no longer wash over the surface of the road and erode the embankment. The placement of scour protection along the two bluffs will decrease erosion, resulting in an increase in water quality.

11 AAC 112.310. Air, land, and water quality. Notwithstanding any other provision of this chapter, the statutes and regulations of the Department of Environmental Conservation with respect to the protection of air, land, and water quality identified in AS 46.40.040(b) are incorporated into the program and, as administered by that department, constitute the exclusive components of the program with respect to those purposes. (Eff. 7/1/2004, Register 170)

Authority: AS 46.39.010 AS 46.39.040 AS 46.40.040
AS 46.39.030 AS 46.40.010

Placement of additional fill in Anchorage Bay and the culvert replacement in fish streams may result in a higher potential for a temporary degradation of water quality. Placement of armor stone and road improvements will have a positive long-term effect on water quality. Storm waves will no longer wash over the surface of the road. The placement of scour protection along the two bluffs will decrease erosion, resulting in an increase in water quality. Replacement of the culvert pipes in the fish streams will improve fish passage.

Storm water runoff will be directed into roadside ditches and cross culverts and then into Humes Creek, the Unnamed Creeks, and Anchorage Bay. These ditches consist of the local rocks, gravel, and sand, which aid in filtering the storm water. Water percolates into the ground and any remaining sediments in the storm water will collect in the bottom of the ditches. The rocky and sandy ditches help prevent contaminants from entering the adjacent water bodies and Anchorage Bay.

To minimize erosion and sedimentation during construction, DOT&PF will utilize Best Management Practices (BMP) as described in The Alaska Storm Water Pollution Prevention Plan Guide, January 2005. Ground disturbing activities are anticipated to be approximately 15.5 acres for the total project. The construction Contractor will be required to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) and a Hazardous Material Control Plan (HMCP) in accordance with the DOT&PF contract specifications. In addition, the Contractor will be required to follow all resource agency permit conditions.

Dust during construction would be controlled through the use of watering or hygroscopic material. The Contractor's equipment maintenance program will

ensure that the construction equipment is running effectively, which will aid in decreasing air quality impacts from the project.

Construction impacts associated with the proposed project will be short-term. No significant adverse effects to the natural environment are anticipated by the proposed improvements. The Department's goal is zero impact on receiving waters.

11 AAC 112.320. Historic, prehistoric, and archeological resources. (a) The department will designate areas of the coastal zone that are important to the study, understanding, or illustration of national, state, or local history or prehistory, including natural processes.
(b) A project within an area designated under (a) of this section shall comply with the applicable requirements of AS 41.35.010 – 41.35.240 and 11 AAC 16.010 – 11 AAC 16.900. (Eff. 7/1/2004, Register 170)
Authority: AS 46.39.010 AS 46.39.040 AS 46.40.040
AS 46.39.030 AS 46.40.010

The State Historic Preservation Office (SHPO) concurred on a finding of no adverse effect to cultural resources.

Article 4. General Provisions.

Section
900. Sequencing process to avoid, minimize, or mitigate
990. Definitions

11 AAC 112.900. Sequencing process to avoid, minimize, or mitigate. (a) As used in this chapter and for purposes of district enforceable policies developed under 11 AAC 114, "avoid, minimize, or mitigate" means a sequencing process of

(1) avoiding adverse impacts to the maximum extent practicable;

(2) where avoidance is not practicable, minimizing adverse impacts to the maximum extent practicable; or

(3) if neither avoidance nor minimization is practicable, conducting mitigation to the extent appropriate and practicable; for purposes of this paragraph, "mitigation" means

(A) on-site rehabilitation of project impacts to affected coastal resources during or at the end of the life of the project; or

(B) to the extent on-site rehabilitation of project impacts is not practicable, substituting, if practicable, rehabilitation of or an improvement to affected coastal resources within the district, either on-site or off-site, for a coastal resource that is unavoidably impacted.

(b) For a project that requires a federal authorization identified under 11 AAC 110.400, the coordinating agency shall consult with the authorizing federal agency during that federal agency's authorization review process to determine whether the mitigation requirements proposed by the federal agency for that federal authorization would satisfy

the mitigation requirements of (a)(3) of this section. If the coordinating agency determines that the mitigation requirements proposed by the federal agency would not satisfy the mitigation requirements of (a)(3) of this section, the coordinating agency shall require appropriate mitigation in accordance with (a)(3) of this section.

(c) For purposes of (a)(3) of this section, a determination of practicability includes the consideration of the following factors, as applicable:

(1) the magnitude of the functional values lost by the impacted coastal resources;

(2) the likelihood that the mitigation measure or improvement will succeed in actually rehabilitating the impacted coastal resources; and

(3) the correlation between the functional values lost by the coastal resources impacted and the proposed mitigation measure or improvement.

(d) To the extent feasible and not otherwise addressed by state or federal law, any requirements imposed under (a)(3) of this section for mitigation through on-site or off-site rehabilitation of project impacts shall be established by the coordinating agency at the time of the project's consistency review under 11 AAC 110.

(e) In applying the mitigation process described in (a)(3) of this section, unless required by a federal agency issuing an authorization identified under 11 AAC 110.400 for the project, the coordinating agency may not require

(1) that no net loss of impacted coastal resources occur; or

(2) monetary compensation. (Eff. 7/1/2004, Register 170; am 10/29/2004, Register 172)

Authority: AS 46.39.010 AS 46.39.040 AS 46.40.040
AS 46.39.030 AS 46.40.01

The Contractor will prepare and implement a Storm Water Pollution and Prevention Plan during construction that conforms to DOT&PF Best Management Practices for Erosion and Sediment Control. Appropriate erosion and siltation controls will be used and maintained in effective operating condition during construction, and all exposed soil and other fills will be permanently stabilized at the earliest practicable date.

The Contractor will develop and implement a Hazardous Material Control Plan during construction. If contamination is discovered in the process of construction, it will be treated and disposed of according to an approved Alaska Department of Conservation (ADEC) Corrective Action Plan (CAP). Any solid waste generated from this project will be disposed of in an approved ADEC matter.

Dust will be controlled through the use of watering or hygroscopic material. The Contractor's equipment maintenance program will ensure that the construction equipment is running effectively which will aid in decreasing air quality impacts from the project. All staging, fueling, and servicing operations will be conducted at least 100 feet from wetlands, and water bodies.

No significant adverse effects to the natural environment are anticipated by the proposed improvements. There will be a slight temporary degradation in air quality and an increase in noise during construction. Using abatement methods

such as watering the surface areas and appropriate equipment maintenance will minimize impacts. Noise levels will increase on a short-term basis due to use of heavy equipment.

If cultural, archeological, or historical sites are discovered in the process of the project construction the SHPO will be contacted and any work that might impact these sites will be halted.

Chignik Airport Access Road provides access from the community to the airport. Notice will be provided to the area residents prior to and during construction in order to minimize impacts.

Avoiding fill in Anchorage Bay is not practicable. Chignik Airport Access Road provides the only land access between the community and the airport and the new small boat harbor. The airport access road travels along the foot of the coastal bluff in two locations. Because the road is along a high energy shoreline, the road has been and continues to be undercut and is eroding in the bluff areas. Ditch space is needed to provide a catchment area for debris falling from the bluff on a regular basis, and to provide for adequate drainage to prevent the road from icing over. The City of Chignik advised that safety and maintenance are primary concerns, and the road needed to be farther away from the foot of the bluff to prevent rocks from falling on the road, and, potentially, travelers.

Work in wetlands and waters of the U.S. has been minimized to the maximum extent while still providing a safe driving surface for the main access road in the community. Fill side slopes in Anchorage Bay have been steepened to the maximum extent while still providing for shoreline protection and wave attenuation.

The U.S. Fish and Wildlife Service (USF&WS) reported that Steller's Eiders, a Threatened and Endangered Species, use Anchorage Bay as winter habitat. They made recommendations to protect the eiders. The USF&WS stated that no in water construction activities, dredging, placement of fill below ordinary high water, or blasting may occur between November 15 and March 30 when the eiders may be present in the Chignik area.

If threatened or endangered species are discovered in the process of project construction, work that would impact these resources will be stopped, and the USF&WS will be contacted at 272-2871 prior to proceeding. In addition, ADOT&PF and its Contractors will comply with regulations established under the Bald Eagle Protection Act.

All necessary permits and agency approvals (ADNR, OHMP Title 41; COE Permit; and a Lake and Peninsula Borough Development Permit) will be obtained prior to construction, and any permit stipulations will be incorporated into our contract specifications.

The culvert pipe design will provide for fish passage in both Humes Creek and the Unnamed Creeks. These culvert pipes would be replaced with a design to match a Tier I or a Tier III fish passage design per the Memorandum of Agreement between ADF&G and ADOT&PF. All in water work will be conducted during the timing window required by ADNR in their Title 41 Permit. In water work areas will be isolated from flowing waters of Humes Creek, the Unnamed Creeks, and Anchorage Bay to the greatest extent possible. Work within the four fish streams cannot be avoided if fish passage is to be improved. In a memo dated December 3, 2004, ADNR reported that the culverts were perched at Humes Creek, the Unnamed Fish Streams Number One and Two. DOT&PF coordinated with ADNR to develop the culvert designs. These culverts will be replaced with Tier I and Tier III fish passage design, which would allow for fish passage.

Stream banks will be modified with the placement of concrete headwalls and riprap. After completion of culvert replacement, in-water work, and ditch reconstruction, the stream banks will be recontoured. Drainage ditches in the vicinity of the fish streams will be reseeded with a native seed mix as suggested by ADNR, OHMP. Areas within the project that already have Beach Wild Rye Grass will be fertilized to encourage it to grow more vigorously.

The opportunity for on-site, in-kind mitigation is limited in the project area. The loss of 3.65 acres of low value intertidal habitat is expected to be offset by creating/restoring fish habitat in 4 streams in the project area. Restoration measures will include replacing existing culverts in four anadromous fish streams to improve fish passage. All fish passage culverts will be designed in accordance with the Memorandum of Agreement between DOT&PF and ADFG (DNR, OHMP).